

to claims 1-5 and 14-18 instead of 1-18, since claims 6-13 were withdrawn from further consideration. In addition, claims 19-20 were rejected for obviousness under 35 USC 103 over the Van Rijn patent in view of U.S. Patent No. 5,807,406 to Braucher. Claim 30 stands rejected for unexplained reasons.

In addition, the Examiner indicated that legible copies of the cited references were not enclosed with the information disclosure statements, and refused to consider them. Applicant is uncertain whether the Examiner is indicating that copies were illegible or simply not found with the file. In any event, Applicant is submitting new and legible copies of the documents cited in the prior information disclosure statements and respectfully requests the Examiner's consideration of them. Recent results of a PCT search are also being submitted.

Turning now to consideration of the rejection on the merits. As the Examiner correctly points out, the '014 patent to Van Rijn generally discloses a membrane filter having a membrane made of a polymeric material, which is one of many materials proposed, and a separate support made of organic or inorganic material, also selected from a long list of varied materials (identified in column 3, lines 50-62), ranging from steel or iron alloys to polyamide, polypropylene, polyolefin and other materials.

However, a vital distinction between the claimed invention and the filter member described in the Van Rijn patent is the fact that the membrane and support in Van Rijn are separate and distinct layers. In contrast, all of the pending claims of the present invention require a polymeric filter membrane and support that are "monolithic." "Monolithic" is a specifically defined term in the present application, which requires that there be "no discernible line of distinction between the filter and support layers" (page 23, lines 17-19).

In accordance with the present invention, a monolithic filter membrane can be formed from a single layer of material or from separate layers. But unlike in the cited Van Rijn patent, the separate layers here are brought together when they are not fully cured, and are made of materials so compatible that "during the curing process the layers chemically bonded or cross-link, and the previous line of distinction between the layers disappears, and a monolithic filter membrane is formed" (page 36, lines 13-19).

The Van Rijn patent, whether considered alone or in combination with the other cited references, does not disclose or suggest a "monolithic" filter membrane having at least a polymeric filter layer and a polymeric support layer. Indeed, the Van Rijn patent tends to lead the reader away from the claimed invention. The Van Rijn patent teaches that the filter membrane may be of

either inorganic material, such as ceramic, metal or metal alloy, or alternatively, a polymeric material such as polyurethane, polytetrafluoroethylene or polyamide (col. 2, lines 63 -- column 3, line 23) and that the support may be made of an inorganic material such as silicon, steel, iron alloys, or other materials such as polyamide, polyvinyl, polypropylene and others (column 3, lines 50-62), although equivalent materials with the same or similar components are preferred.

It is clear from such a varied list of disparate materials that Van Rijn did not conceive, and certainly did not suggest, that the separate layers in his filter membrane could be "monolithic," as required by the claims of the present invention. In fact, the Van Rijn patent emphasizes the separate nature of the layers in his patent by pointing out that an intermediate layer may be deposited for bonding enhancement and stress reduction -- "[b]etween the membrane layer and the support an intermediate layer may be deposited for bonding enhancement and stress reduction consisting of, e.g. Borax, chromium, nickel, titanium, silicon oxide or phosphorus pentoxide. In particular cases, the intermediate layer may moreover act as an etch stop layer" (column 3, lines 45-50).

Thus, Van Rijn does not describe or suggest the possibility of a monolithic filter membrane as required by the present claims and

actually teaches away from the present invention. None of the other references "fill this gap" in the teaching of Van Rijn.

For the above reasons, is respectfully submitted that the claimed subject matter is not anticipated or rendered obvious by the Van Rijn patent or any of the other cited references. Accordingly, reconsideration and allowance are respectfully requested.

If it is determined that fees are required, please charge Deposit Account No. 50/1039.



Respectfully submitted,

Gary W. McFarron
Registration No. 27,357
COOK, ALEX, McFARRON, MANZO,
CUMMINGS & MEHLER, LTD.
200 West Adams
Suite 2850
Chicago, Illinois 60606
(312) 236-8500